CLAIM AMENDMENTS

1. (Currently Amended) A body of a vehicle for hauling material having a front wall, a pair of sidewalls and a rear edge, the body made by the following process:

(a) determining an anticipated point of use for the vehicle;

(b) collecting data from the anticipated point of use including information regarding the shape of an actual load carried in an existing vehicle body as it extends upwards to the actual load top from at least two of a group consisting of the body front wall, the body rear edge or one of the two body sidewalls;

(c) determining a desired location for a load center of gravity on a chassis of the vehicle;

(d) determining a desired volumetric capacity for the body;

(e) establishing an initial line for a floor of the body, an initial line for ~~a~~ the front wall of the body and an initial inside body width;

(f) developing a three dimensional volumetric model of a load to be carried in the body on the chassis defined by the initial floor line, the initial front wall line and the initial inside body width using the data collected from the anticipated point of use with the three dimensional volumetric model having a volume and a volumetric model center of gravity located on the chassis;

(g) adjusting a set of design parameters of the body until the load model center of gravity is located proximate the desired location for the load center of gravity on the chassis from step (c) and the volume of the three dimensional volumetric model is substantially similar to the desired volumetric capacity from step (d); and

(h) producing the body in accordance with the set of design parameters.

2. (Currently Amended) The invention according to claim 1 wherein the set of design parameters of the body includes a position of the body floor and a position of the body sidewalls.

3. (Original) The invention according to claim 2 wherein the position of the body floor includes a length of the floor.

4. (Original) The invention according to claim 2 wherein the position of the body sidewalls includes a height of the sidewalls.

5. (Original) The invention according to claim 4 wherein the position of the body sidewalls further includes a distance between the respective sidewalls.

6. (Original) The invention according to claim 2 wherein the set of design parameters of the body further includes a position of the body front wall.

7. (Currently Amended) The invention according to claim 4 further including the step of adjusting the length of the body floor and the height of the body sidewalls to provide the lowest practical vertical location for the center of gravity of the three dimensional voluemetric model of the hauled material.

8. (Currently Amended) The invention according to claim 1 wherein the data collected from the anticipated point of use includes angles of material repose ~~of an actual load carried in an existing vehicle body~~.

9. (Original) The invention according to claim 8 wherein the angles of material repose include a front angle of material repose, a rear angle of material repose and side angles of the material repose.

10. (Previously Presented) The invention according to claim 9 wherein the data collected from the anticipated point of use further includes a representation of an actual load carried in an existing vehicle body.

11. (Currently Amended) The invention according to claim 10 wherein the data collected from the anticipated point of use includes angles of material repose and representations of corner voids present in the corners of ~~a plurality of~~ existing load-carrying vehicle bodies.

12. (Previously Presented) The invention according to claim 1 wherein the data collected from the anticipated point of use further includes a density of the load material.

13. (Previously Presented) The invention according to claim 1 wherein the data collected from the anticipated point of use includes a method used for loading material into an existing vehicle body.

14. (Previously Presented) The invention according to claim 10 wherein the step of developing the three dimensional volumetric model of a load to be carried in the body includes developing the three dimensional volumetric load model to account for corner voids in the vehicle body.

15. (Currently Amended) The invention according to claim 14 wherein the three dimensional volumetric load model is developed through a gradual incremental blending of the respective side angles of material repose to the front angle of material repose and a gradual incremental blending of the respective side angles of material repose to the rear angle of material repose ~~through respective rounded corners of the three-dimensional model of the hauled material~~.

16. (Currently Amended) The invention according to claim 14 further including the step of comparing the three dimensional volumetric load model with the representation of the actual load information collected at the anticipated point of use and adjusting the three dimensional volumetric load model as necessary such that the three dimensional volumetric load model substantially ~~matches~~ compares with the representation of the actual load information collected at the anticipated point of use.

17. (Currently Amended) The invention according to claim 15 wherein the incremental blending of the side angles of material repose to the front and rear angles of material repose includes dividing the respective rounded corners of the three-dimensional volumetric model into equal segments, establishing a plane in each of these segments at a respective angle which allows an incremental change in the angles of material repose ~~through the rounded corners of the three dimensional model~~ and extending the planes until they intersect the perimeter of the body.

18. (Previously Presented) The invention according to claim 1 wherein the step of developing the three dimensional volumetric model of a load to be carried in the body includes modeling corner voids of the hauled material into the three dimensional volumetric load model.

19. (Previously Presented) The invention according to claim 1 further including the step of adjusting the set of design parameters to provide the lowest practical vertical location for the center of gravity of the three dimensional model of the hauled material.

20. (Previously Presented) The invention according to claim 1 further including the step of adjusting the set of design parameters to allow material to be loaded into the dump body from the lowest practical vertical location.

21. (Currently Amended) A body of a vehicle for hauling material having a front wall, a pair of sidewalls and a rear edge, the body made by the following process:

(a) determining a desired location for a load center of gravity on a chassis of the haulage vehicle;

(b) determining a desired volumetric capacity for the body;

(c) establishing an initial line for a floor of the body, an initial line for ~~a~~ the front wall of the body and an initial inside body width;

(d) developing a three dimensional volumetric model of a load to be carried in the body on the chassis defined by the initial floor line, the initial front wall line and the initial inside body width using data collected from an anticipated point of use including ~~at least one angle~~ information from which at least two angles of material repose of an actual load carried in an existing vehicle body can be determined, the two angles of material of repose being from a group consisting of (1) a front angle of material repose of the actual load as the actual load extends from the front wall of the body to a load top, (2) one of two side angles of material repose as the actual load extends from a respective one of sidewalls of the body to the load top and (3) a rear angle of material repose as the actual load extends from the rear edge of the body to the load top, ~~with~~ the three dimensional volumetric model having a volume and a volumetric model center of gravity located on the chassis;

(e) adjusting a set of design parameters of the body until the load model center of gravity is located proximate the desired location for the load center of gravity on the chassis from step (a) and the volume of the three dimensional volumetric model is substantially similar to the desired volumetric capacity from step (b); and

(f) producing the body in accordance with the set of design parameters.

22. (Currently Amended) The invention according to claim 21 wherein the set of design parameters of the body includes a position of the body floor and a position of the body sidewalls.

23. (Previously Presented) The invention according to claim 22 wherein the position of the body floor includes a length of the floor.

24. (Previously Presented) The invention according to claim 22 wherein the position of the body sidewalls includes a height of the sidewalls.

25. (Previously Presented) The invention according to claim 24 wherein the position of the body sidewalls further includes a distance between the respective sidewalls.

26. (Previously Presented) The invention according to claim 22 wherein the set of design parameters of the body further includes a position of the body front wall.

Claim 27 (Cancelled)

28. (Previously Presented) The invention according to claim 21 wherein the data collected from the anticipated point of use further includes representations of the conical shape of an actual load carried in an existing vehicle body.

29. (Previously Presented) The invention according to claim 21 further including the step of adjusting the set of design parameters to provide the lowest practical vertical location for the center of gravity of the three dimensional model of the hauled material.

30. (Previously Presented) The invention according to claim 21 further including the step of adjusting the set of design parameters to allow material to be loaded into the dump body from the lowest practical vertical location.

31. (Currently Amended) A body of a vehicle for hauling material, the body made by the following process:

(a) determining a desired location for a load center of gravity on a chassis of the haulage vehicle;

(b) determining a desired volumetric capacity for the body;

(c) establishing an initial line for a floor of the body, an initial line for a front wall of the body and an initial inside body width;

(d) developing a three dimensional volumetric model of a load to be carried in the body on the chassis defined by the initial floor line, the initial front wall line and the initial inside body width including developing a three dimensional volumetric load model that includes corner voids and a truncated peak of the three dimensional volumetric model, the

three dimensional volumetric model having a volume and a volumetric model center of gravity located on the chassis;

(e) adjusting a set of design parameters of the body until the load model center of gravity is located proximate the desired location for the load center of gravity on the chassis from step (a) and the volume of the three dimensional volumetric model is substantially similar to the desired volumetric capacity from step (b); and

(f) producing the body in accordance with the set of design parameters.

32. (Currently Amended) The invention according to claim 31 wherein the set of design parameters of the body includes a position of the body floor and a position of the body sidewalls.

33. (Previously Presented) The invention according to claim 32 wherein the position of the body floor includes a length of the floor.

34. (Previously Presented) The invention according to claim 32 wherein the position of the body sidewalls includes a height of the sidewalls.

35. (Previously Presented) The invention according to claim 34 wherein the position of the body sidewalls further includes a distance between the respective sidewalls.

36. (Previously Presented) The invention according to claim 32 wherein the set of design parameters of the body further includes a position of the body front wall.

37. (Currently Amended) The invention according to claim 31 wherein the ~~rounded-off~~ three dimensional volumetric load model is developed through a gradual incremental blending of respective side angles of material repose to a front angle of material repose and a gradual incremental blending of the respective side angles of material repose to a rear angle of material repose.

38. (Currently Amended) The invention according to claim 37 wherein the incremental blending of the side angles of material repose to the front and rear angles of material repose includes dividing the respective corners of the three-dimensional volumetric model into equal segments, establishing a plane in each of these segments at a respective angle which allows an incremental change in the angles of material repose through the front,

sides and rear of the three dimensional model and extending the planes until they intersect the perimeter of the body.

Claims 39-51 (Cancelled)

52. (Currently Amended) A body of a vehicle for hauling material having a front wall, a pair of sidewalls and a rear edge, the body made by the following process:

(a) determining a representative point of use for the vehicle;

(b) collecting data from the representative point of use;

(c) determining a desired location for a load center of gravity on a chassis of the [haulage] vehicle;

(d) determining a desired volumetric capacity for the body;

(e) establishing an initial line for a floor of the body, an initial line for a front wall of the body and an initial inside body width;

(f) developing a three dimensional volumetric model of a load to be carried in the body on the chassis defined by the initial floor line, the initial front wall line and the initial inside body width using the data collected from the representative point of use with the three dimensional volumetric model having a volume and a volumetric model center of gravity located on the chassis, the data collected from the representative point of use including information regarding the shape of an actual load carried in an existing vehicle body as it extends upwards to the actual load top from at least two of a group consisting of the body front wall, the body rear edge and one of the two body sidewalls;

(g) adjusting a set of design parameters of the body until the load model center of gravity is located proximate the desired location for the load center of gravity on the chassis from step (c) and the volume of the three dimensional volumetric model is substantially similar to the desired volumetric capacity from step (d); and

(h) producing the body in accordance with the set of design parameters.

53. (Previously Presented) The invention according to claim 52 wherein the set of design parameters of the body includes a position of the body floor and a position of body sidewalls.

54. (Previously Presented) The invention according to claim 52 wherein the data collected from the representative point of use includes angles of material repose of an actual load carried in an existing vehicle body.

55. (Previously Presented) The invention according to claim 52 wherein the data collected from the representative point of use further includes a density of the load material.

56. (Previously Presented) The invention according to claim 52 wherein the data collected from the anticipated point of use includes a method used for loading material into an existing vehicle body.

57. (Previously Presented) The invention according to claim 52 wherein the step of developing the three dimensional volumetric model of a load to be carried in the body includes developing a generally rounded-off conical three dimensional volumetric load model.

58. (Previously Presented) The invention according to claim 52 further including the step of adjusting the set of design parameters to provide the lowest practical vertical location for the center of gravity of the three dimensional model of the hauled material.

59. (Previously Presented) The invention according to claim 52 further including the step of adjusting the set of design parameters to allow material to be loaded into the dump body from the lowest practical vertical location.

60. (Currently Amended) A body of a vehicle for hauling material having a front wall, a pair of sidewalls and a rear edge, the body made by the following process:

(a) determining an anticipated point of use for the vehicle;

(b) collecting data from the anticipated point of use;

(c) determining a desired volumetric capacity for the body;

(d) establishing an initial line for a floor of the body, an initial line for a front wall of the body and an initial inside body width;

(e) developing a three dimensional volumetric model of a load to be carried in the body defined by the initial floor line, the initial front wall line and the initial inside body width using the data collected from the anticipated point of use with the three dimensional volumetric model having a volume, the data collected from the anticipated point of use including information regarding the shape of an actual load carried in an existing vehicle body as it extends upwards to the actual load top from at least two of a group consisting of the body front wall, the body rear edge or one of the two body sidewalls;

(f) adjusting a set of design parameters of the body until the volume of the three dimensional volumetric model is substantially similar to the desired volumetric capacity from step (c); and

(g) producing the body in accordance with the set of design parameters.